

Idaho has tremendous geothermal potential

By Michael Keckler, Public Information Officer, Idaho Department of Water Resources

On a Wednesday evening in mid-August, about 50 people gathered in Cascade to learn how they can benefit from a particular natural phenomenon found throughout Valley County. The Idaho Energy Division sponsored workshop focused on naturally heated geothermal water, and how it can be utilized to heat homes, businesses, and public buildings, raise aquaculture, and generate electricity. While the discussion that night centered on geothermal resources in one particular county, central and southern Idahoans from east to west could potentially get in on the action.

Idaho's underlying geology, roughly from McCall south, consists of fractured rocks and faults, which allow a constant supply of hot water to flow to the surface or close to it. Early settlers recognized the potential uses over a century ago. Resorts like Lava Hot Springs in Eastern Idaho were established, and homes were heated and still are along aptly named Warm Springs Boulevard in Boise. In fact, the Idaho Statehouse is the only capitol building in the nation heated with geothermal water.

Today, some of the capital city's most recent and modern structures are heated by same geothermal source. Buildings like the new Ada County Courthouse, and the Idaho Water Center, where the Idaho Department of Water Resources is now headquartered are heated by water with a supply temperature of about 175 degrees Fahrenheit. "A decade ago, I did a rough calculation that estimated that geothermal use in Boise's downtown core saved about \$1 million per year in energy costs as opposed to using natural gas or electricity," IDWR Hydrogeologist Ken Neely said. "Obviously today, that figure would be considerably more."

One Idaho-based company is working to turn a geothermal source in the Raft River area into a producer of electricity – a \$20 million facility that will be the first of its kind in the Pacific Northwest. U.S. Geothermal, Inc. is developing the 10-megawatt power plant using a working fluid with a lower boiling point than water. After being heated by geothermal water, the working fluid flashes to steam and drives the turbines producing electricity.

The working fluid condenses and is re-used, while the geothermal water is re-injected into the ground after the heat is extracted. U.S. Geothermal has signed a contract to sell the power it generates to the Idaho Power Company.

These are just a few examples of Idahoans taking advantage of nature's hot water tank - providing a seemingly endless supply of energy, bubbling up throughout much of the southern part of our state. The Idaho Energy Division has a lot of information available to help you learn more about the resource and whether you can tap into it. Visit our website: www.idahogeothermal.org and find contact information and much more.

50 Valley County residents thought it was well worth their time to learn more about the wafting clouds of natural steam rising from various hot springs in their area. Maybe you should too.

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